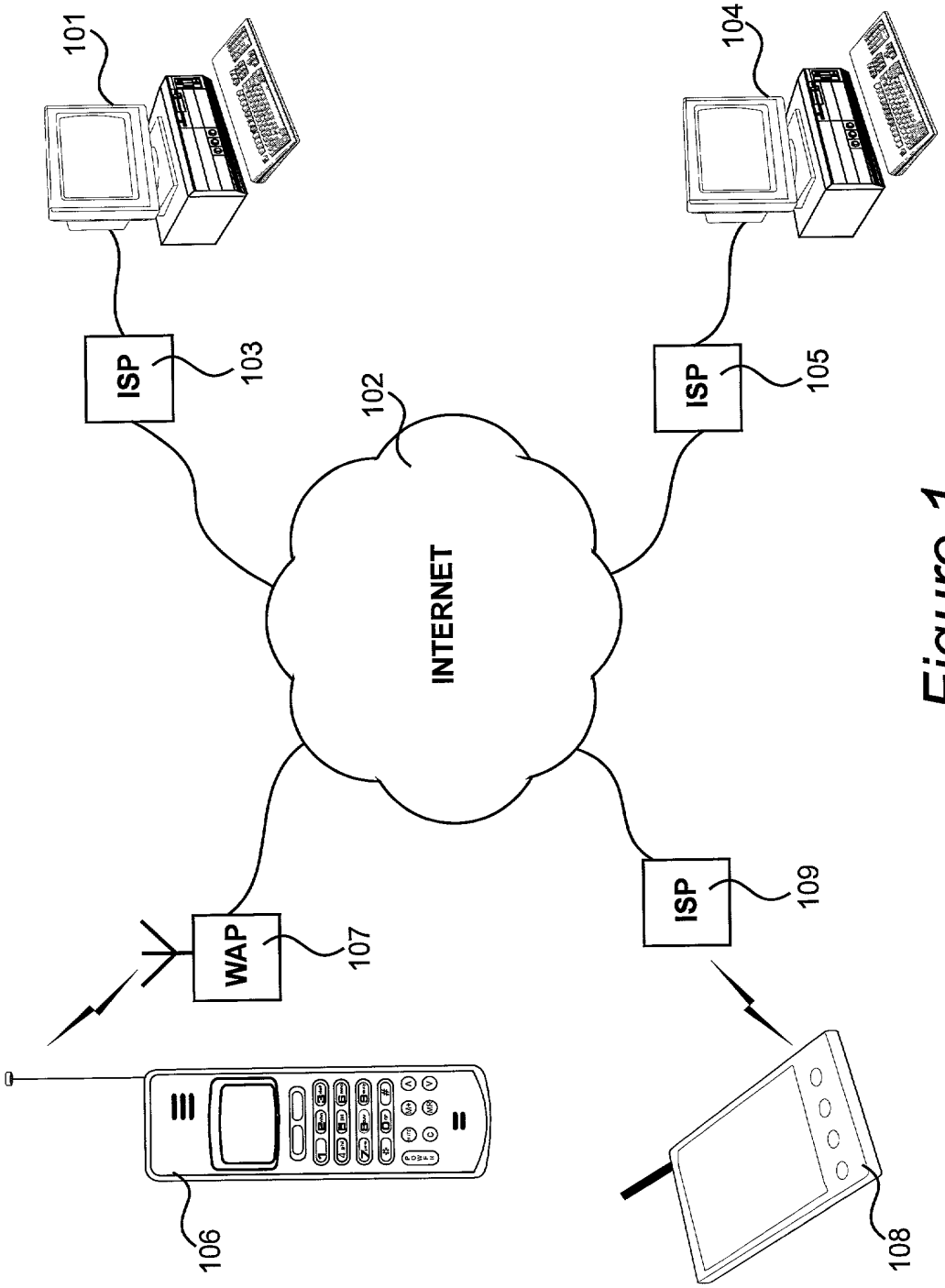

Figure 1

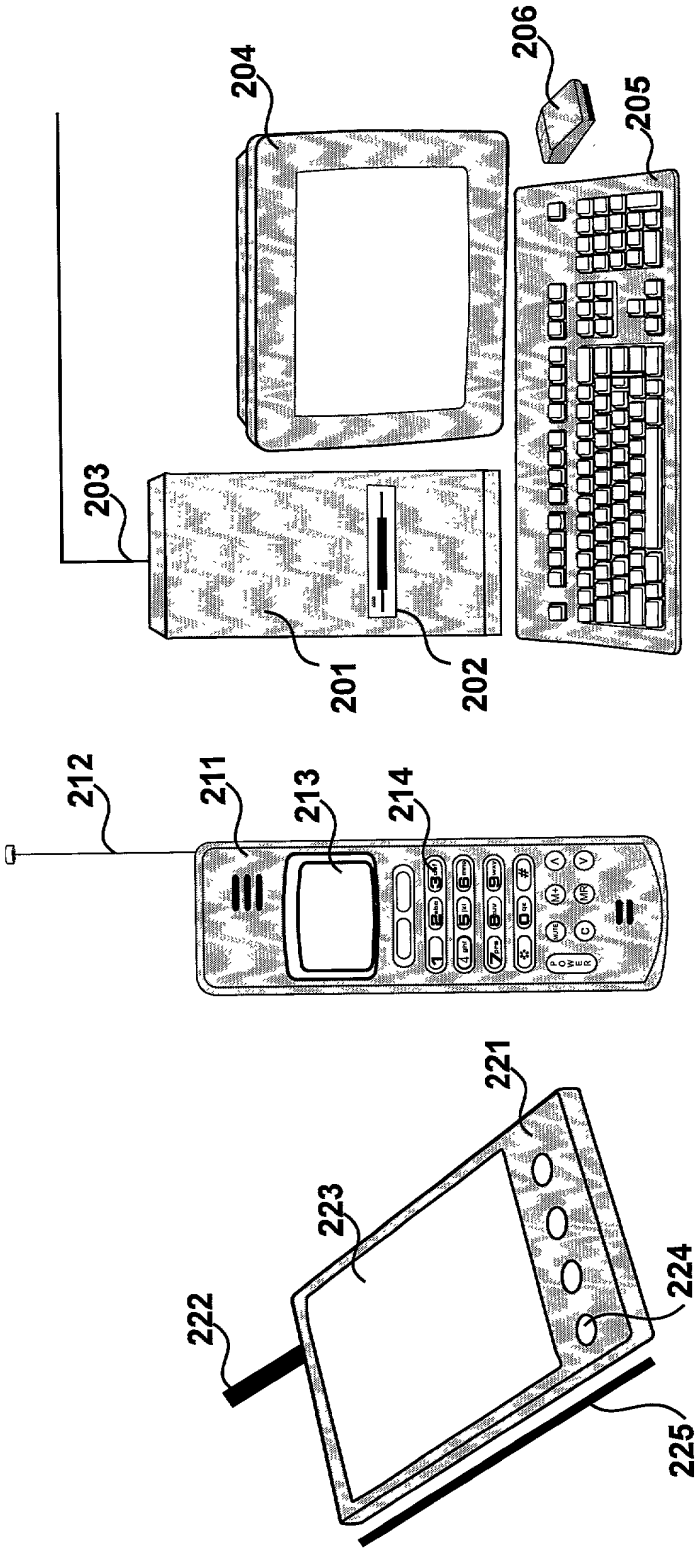

Figure 2

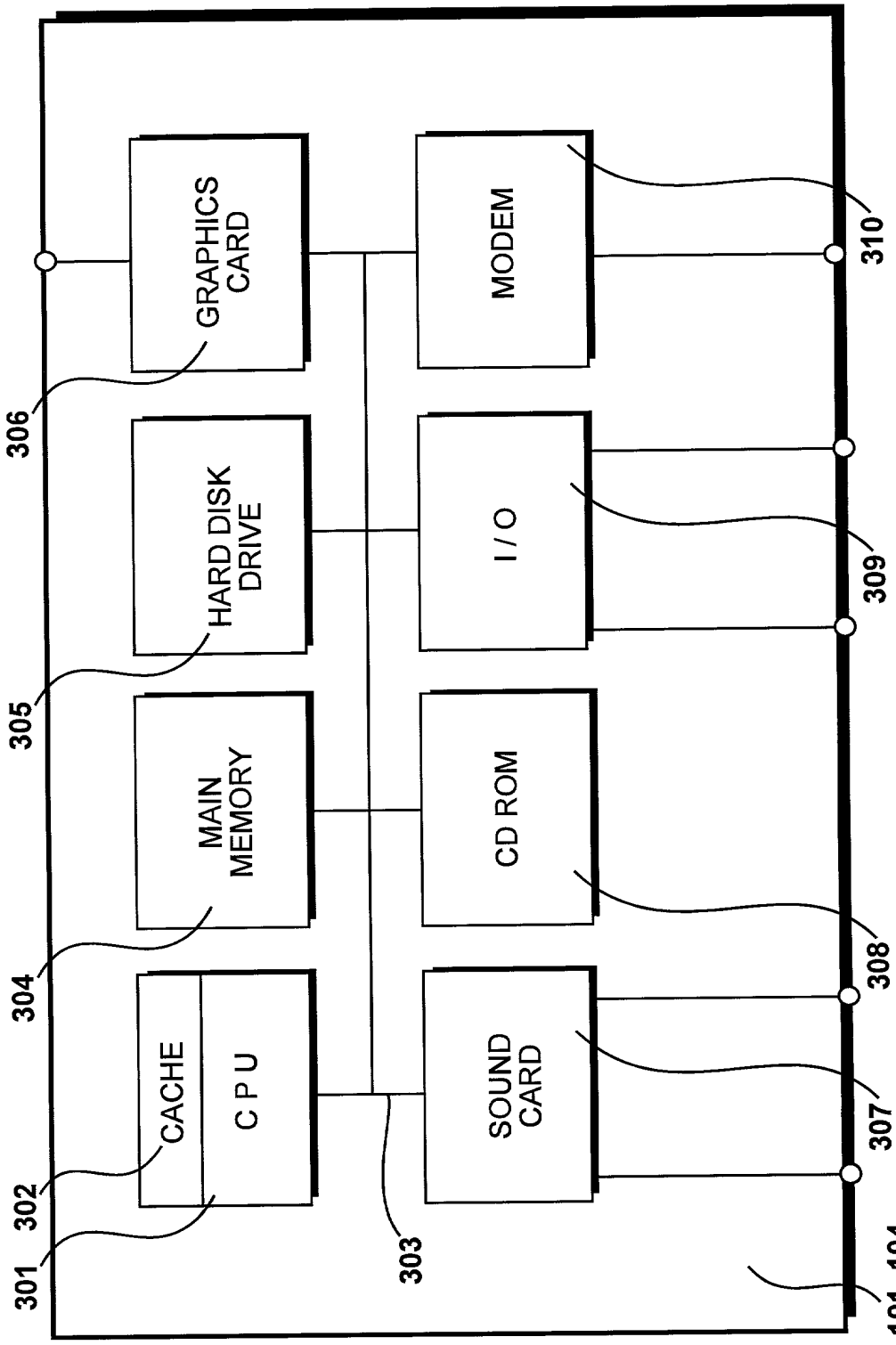
GRAPHICS CARD
MODEM
HARD DISK DRIVE
I / O
MAIN MEMORY
CD ROM
CACHE
C P U
SOUND CARD
306
310
305
309
304
308
302
307
301
303
101, 104

Figure 3

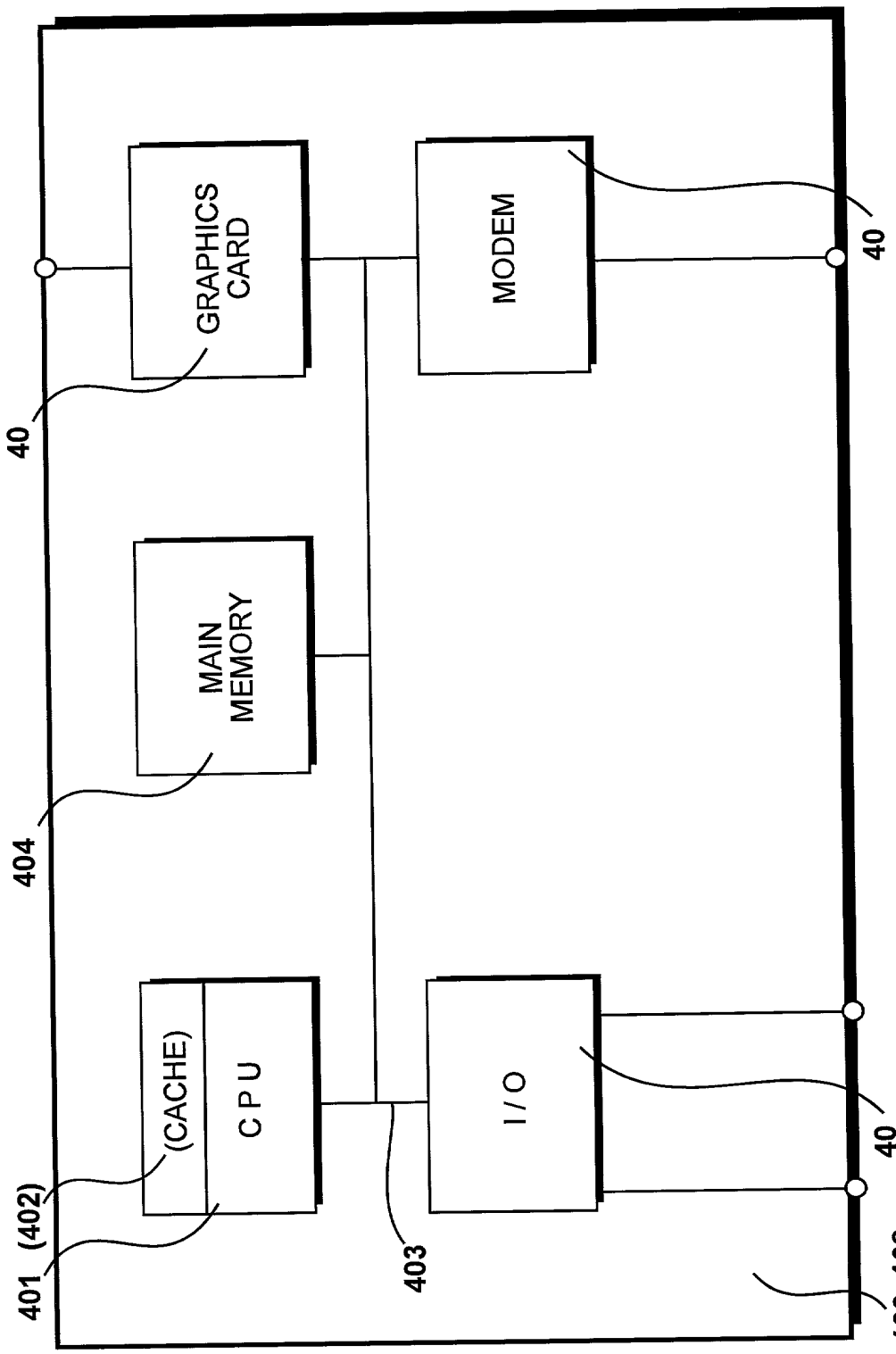
GRAPHICS CARD
MODEM
MAIN MEMORY
(CACHE)
CPU
I/O
40
40
40
404
401
(402)
403
106, 108

Figure 4

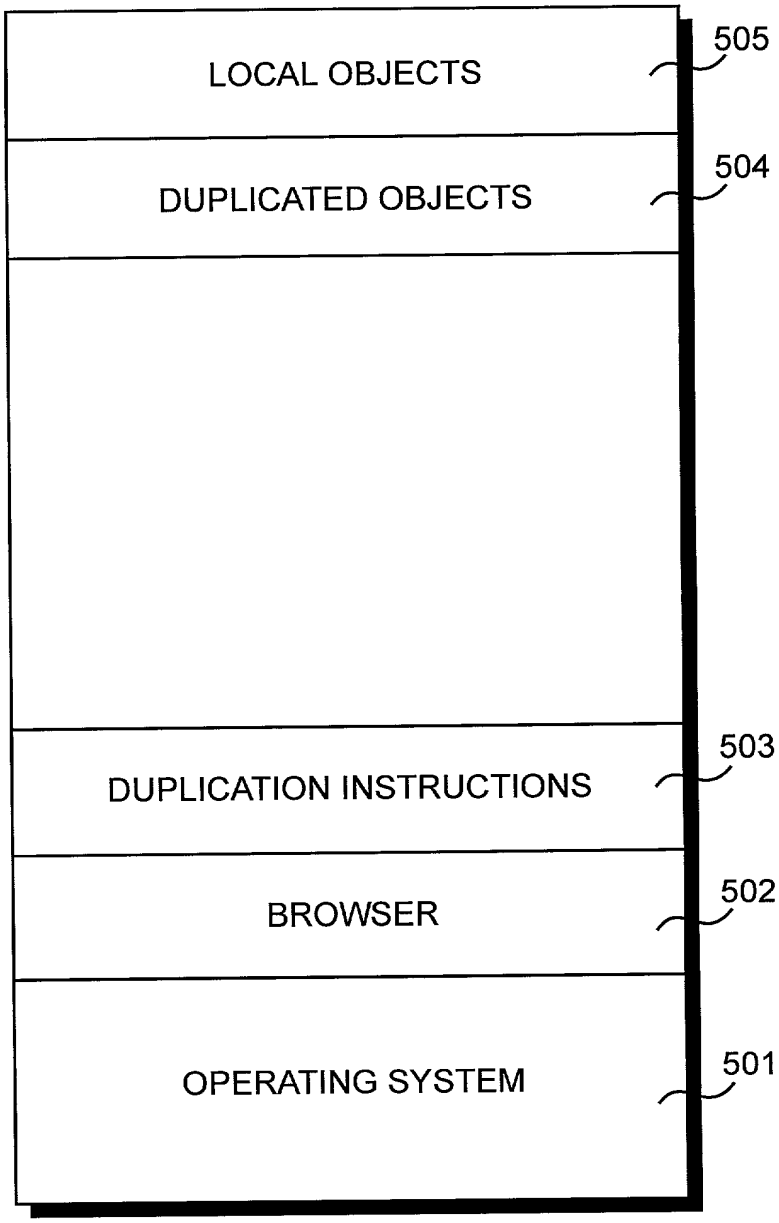
LOCAL OBJECTS
505
DUPLICATED OBJECTS
504
DUPLICATION INSTRUCTIONS
503
BROWSER
502
OPERATING SYSTEM
501

Figure 5

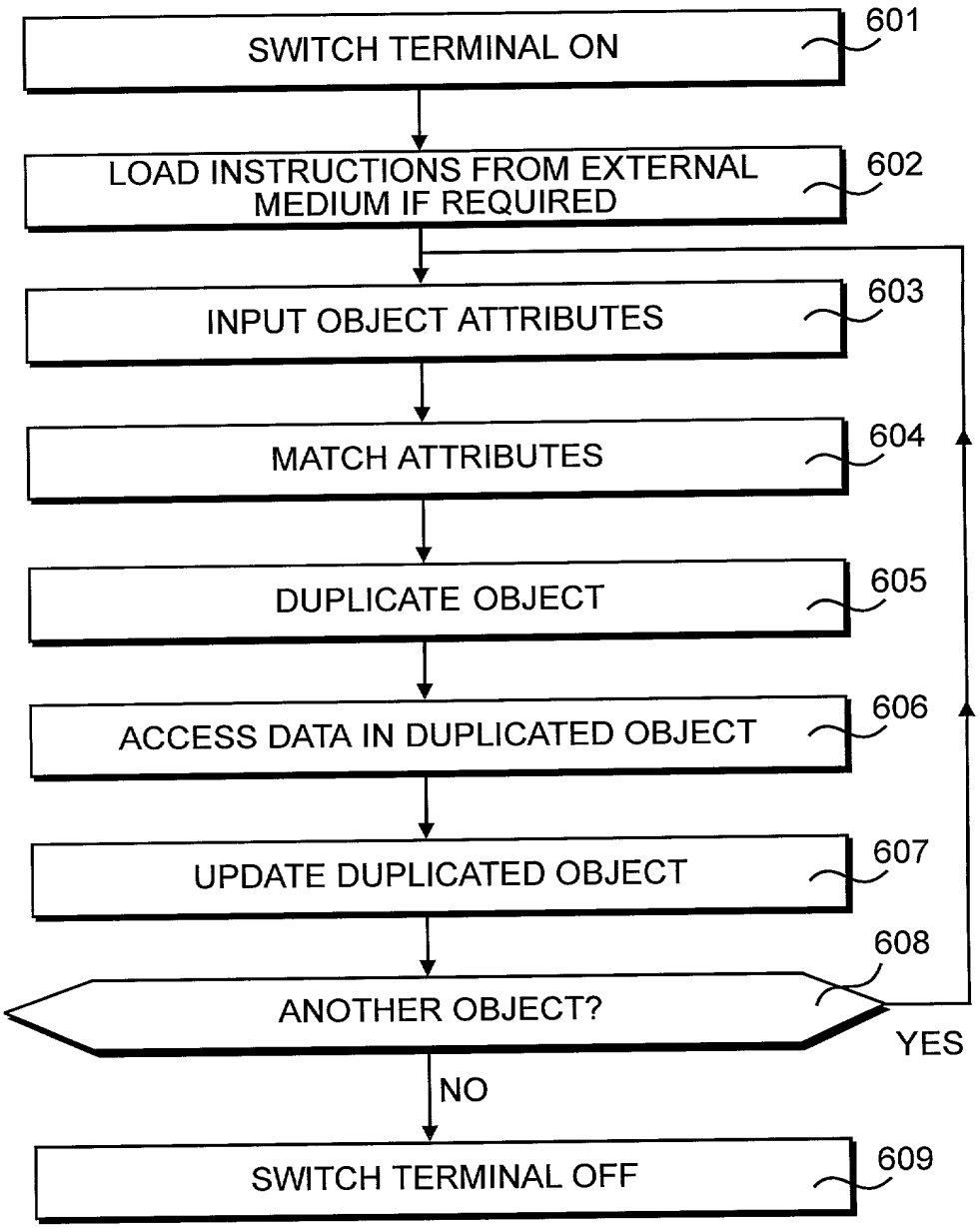
SWITCH TERMINAL ON
601
LOAD INSTRUCTIONS FROM EXTERNAL MEDIUM IF REQUIRED
602
INPUT OBJECT ATTRIBUTES
603
MATCH ATTRIBUTES
604
DUPLICATE OBJECT
605
ACCESS DATA IN DUPLICATED OBJECT
606
UPDATE DUPLICATED OBJECT
607
ANOTHER OBJECT?
608
YES
NO
SWITCH TERMINAL OFF
609

Figure 6

701	Title "2-for-1 offer";
702	# include <2-for-1.h>
703	Void main (void) {
704	Define PromotionSpace;
705	Client * pClient = Client : : Create();
	// initialise the client attributes
706	pClient ⟶ Publish();
	// will eventually discover relevant promotion
707	Promotion * pPromotion = Promotion : : Create();
	// initialise the promotion attributes
708	pPromotion ⟶ Publish();
	// will eventually discover relevant client
	}

Figure 7

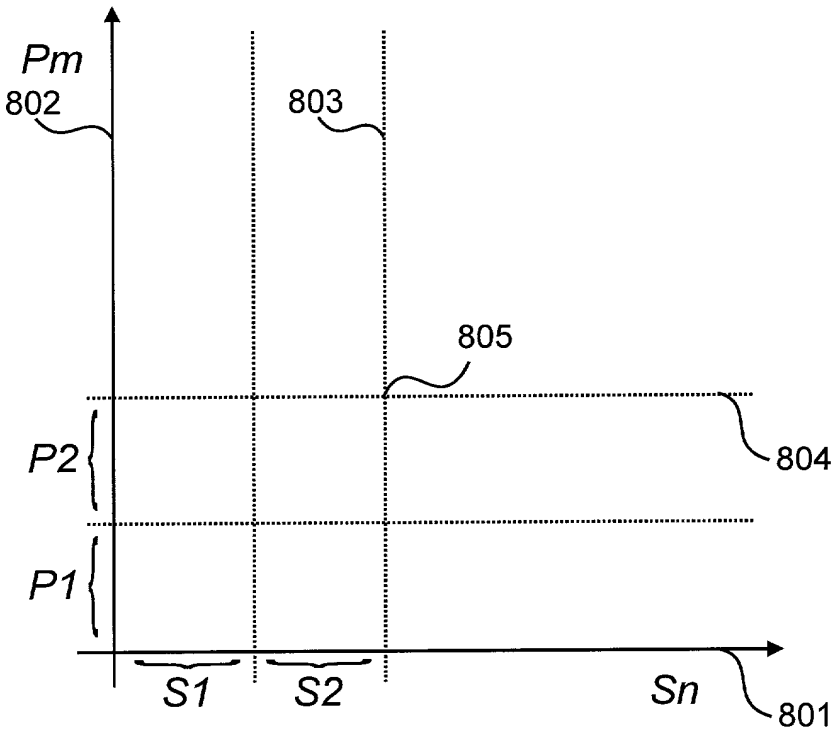

Figure 8

901 $Sn = S1 \cup S2 \cup \ldots \cup Sn$

902 $Pm = P1 \cup P2 \cup \ldots \cup Pm$

903 $C1,1 = S1 \cup P1$

$C1,2 = S1 \cup P2$

904 $C1,m = S1 \cup Pm$

905 $Cn,m = Sn \cup Pm$

906 $R = C(P) \times C(S)$

907 $R = \frac{C(S) \times C(P)}{(n \times m)}$

908 $Cn,n = Sn \cup Pn$

Figure 9

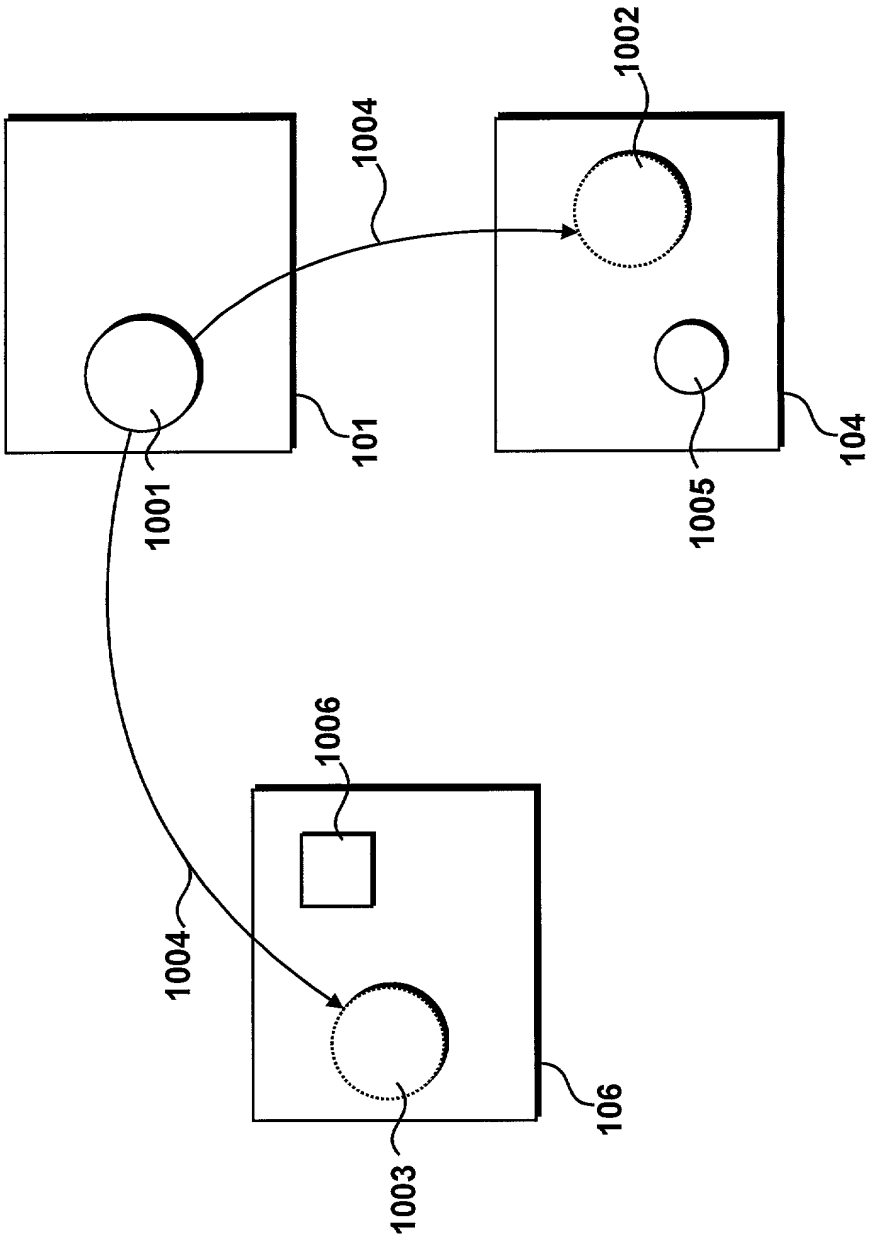

Figure 10

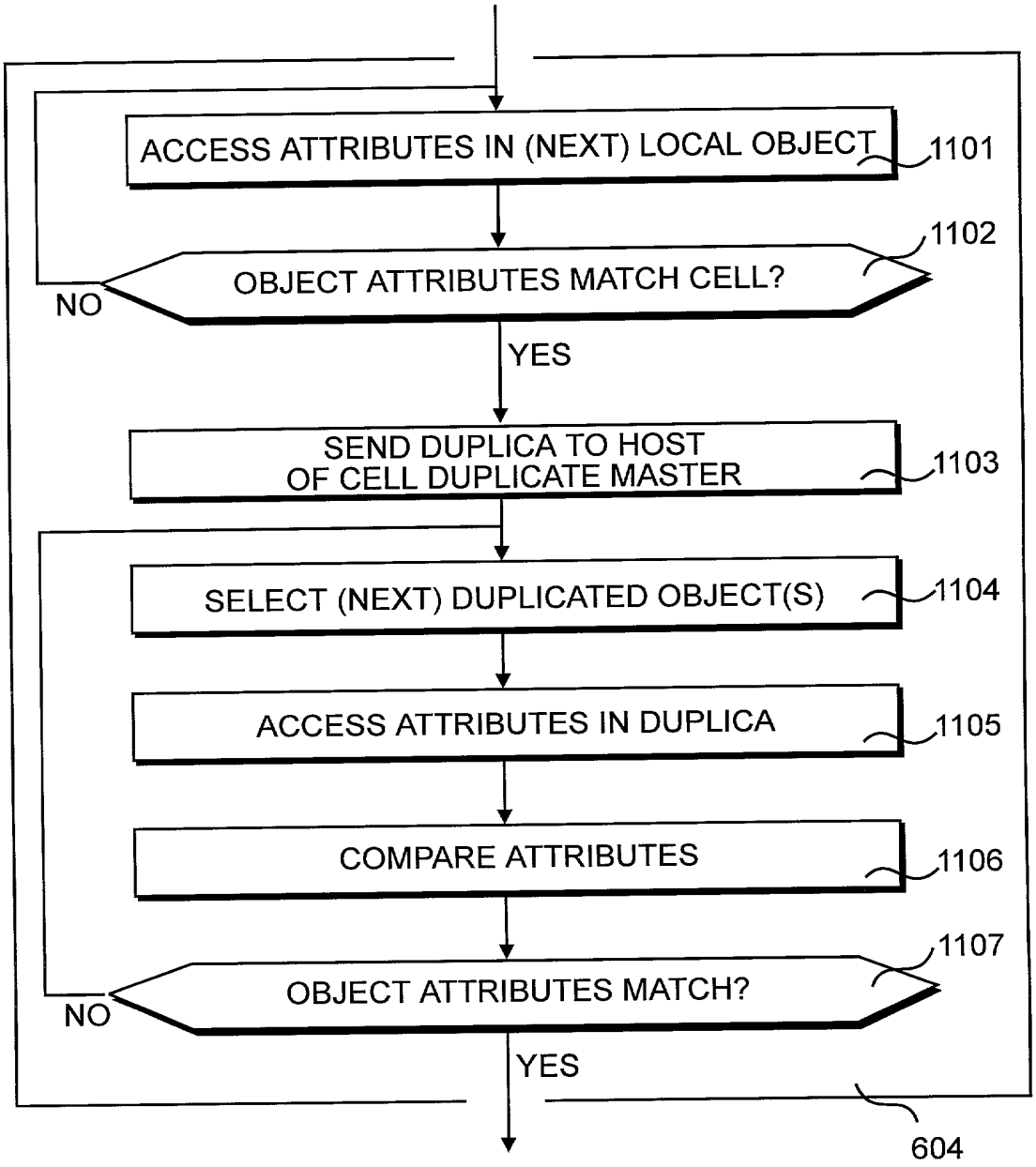
ACCESS ATTRIBUTES IN (NEXT) LOCAL OBJECT
1101
1102
OBJECT ATTRIBUTES MATCH CELL?
NO
YES
SEND DUPLICA TO HOST OF CELL DUPLICATE MASTER
1103
SELECT (NEXT) DUPLICATED OBJECT(S)
1104
ACCESS ATTRIBUTES IN DUPLICA
1105
COMPARE ATTRIBUTES
1106
1107
OBJECT ATTRIBUTES MATCH?
NO
YES
604

Figure 11

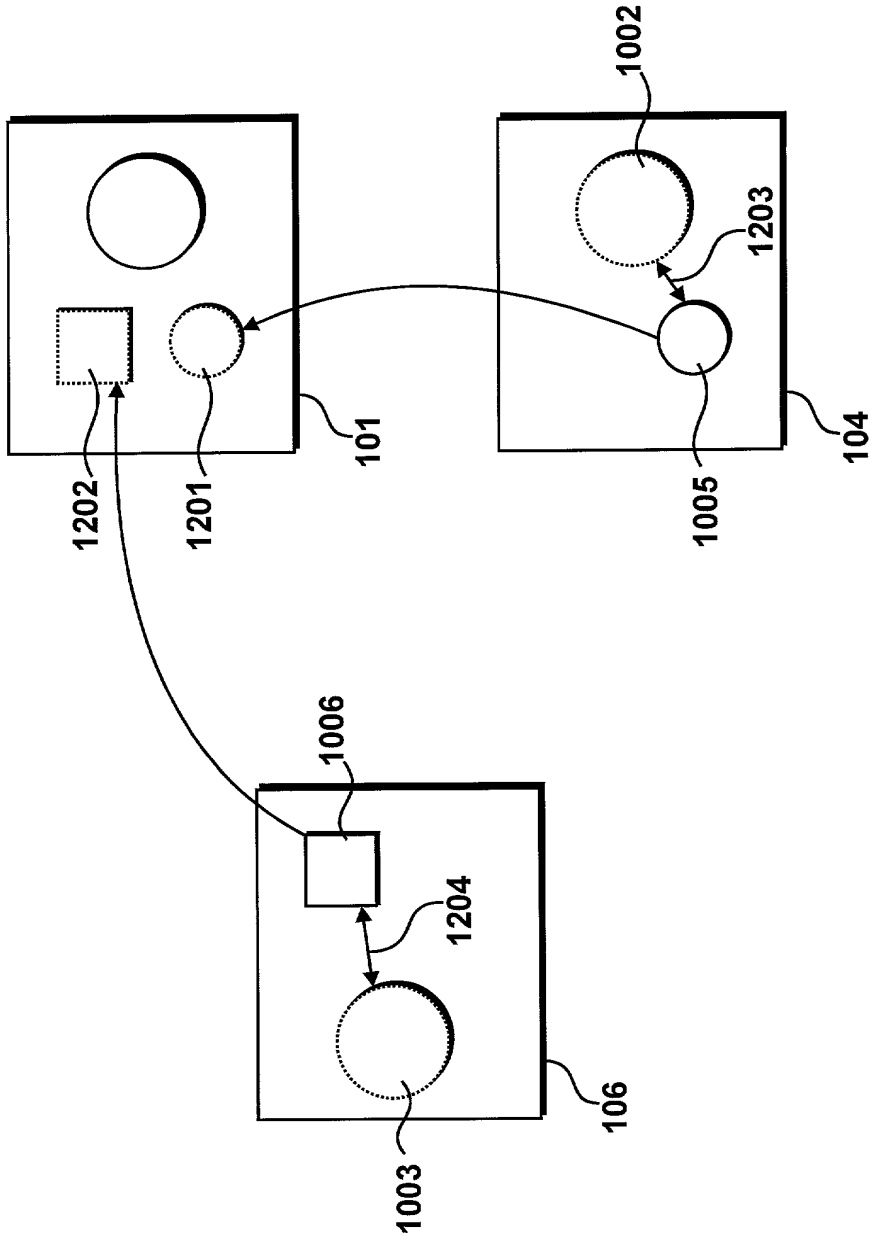

Figure 12

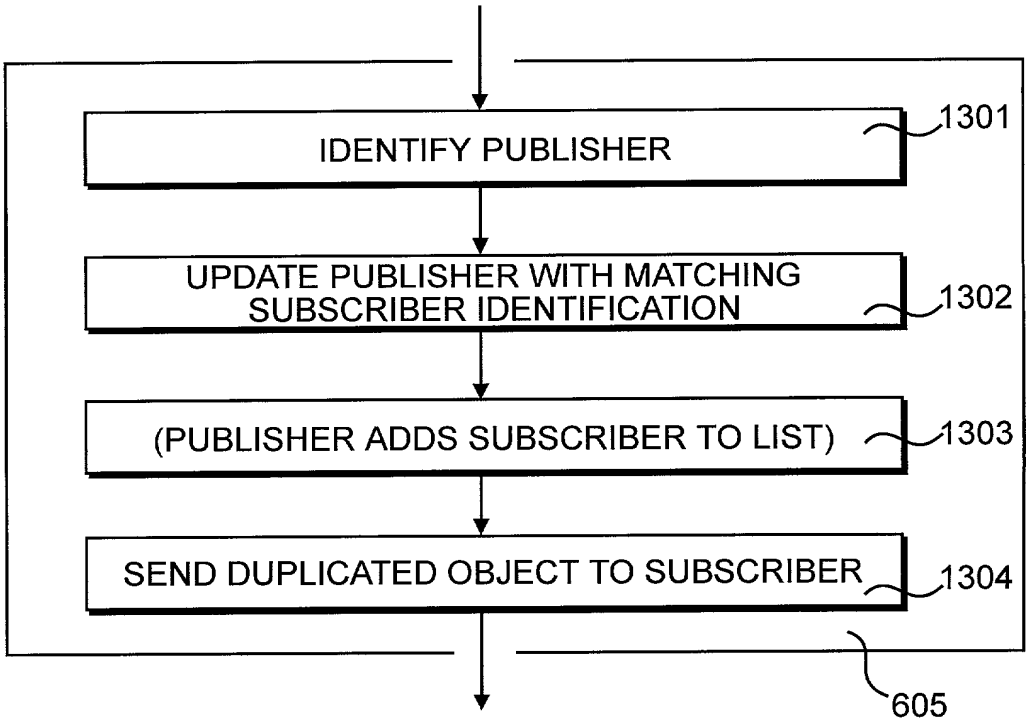
IDENTIFY PUBLISHER
1301
UPDATE PUBLISHER WITH MATCHING SUBSCRIBER IDENTIFICATION
1302
(PUBLISHER ADDS SUBSCRIBER TO LIST)
1303
SEND DUPLICATED OBJECT TO SUBSCRIBER
1304
605

Figure 13

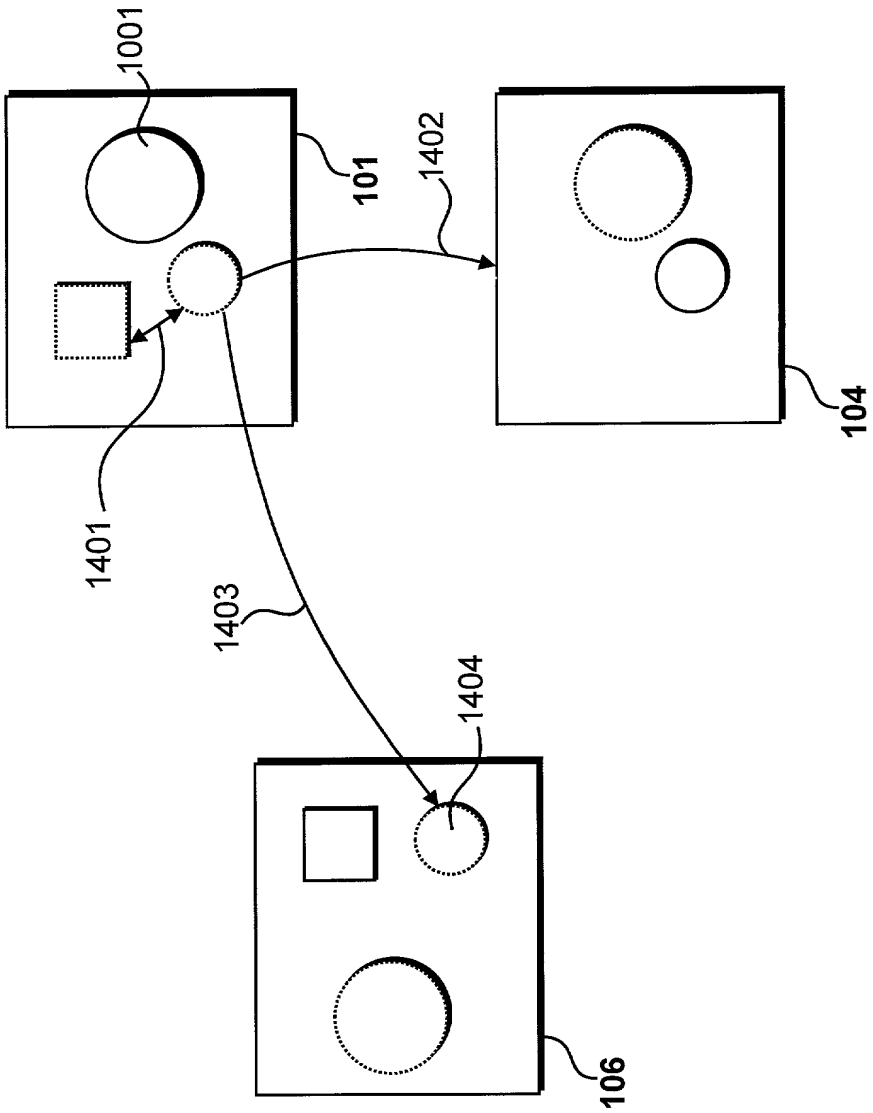

Figure 14

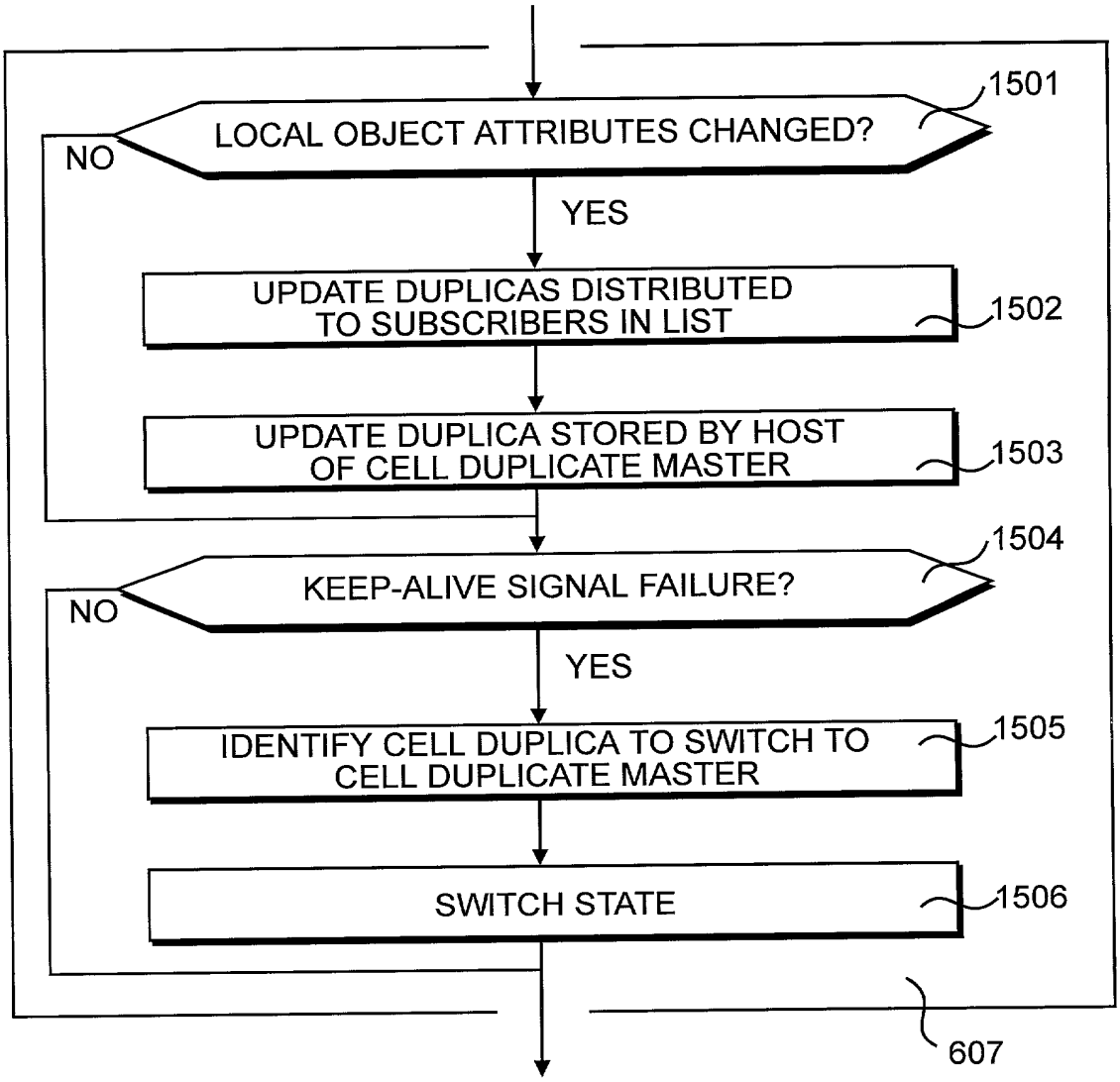
1501
LOCAL OBJECT ATTRIBUTES CHANGED?
NO
YES
UPDATE DUPLICAS DISTRIBUTED TO SUBSCRIBERS IN LIST
1502
UPDATE DUPLICA STORED BY HOST OF CELL DUPLICATE MASTER
1503
1504
KEEP-ALIVE SIGNAL FAILURE?
NO
YES
IDENTIFY CELL DUPLICA TO SWITCH TO CELL DUPLICATE MASTER
1505
SWITCH STATE
1506
607

Figure 15

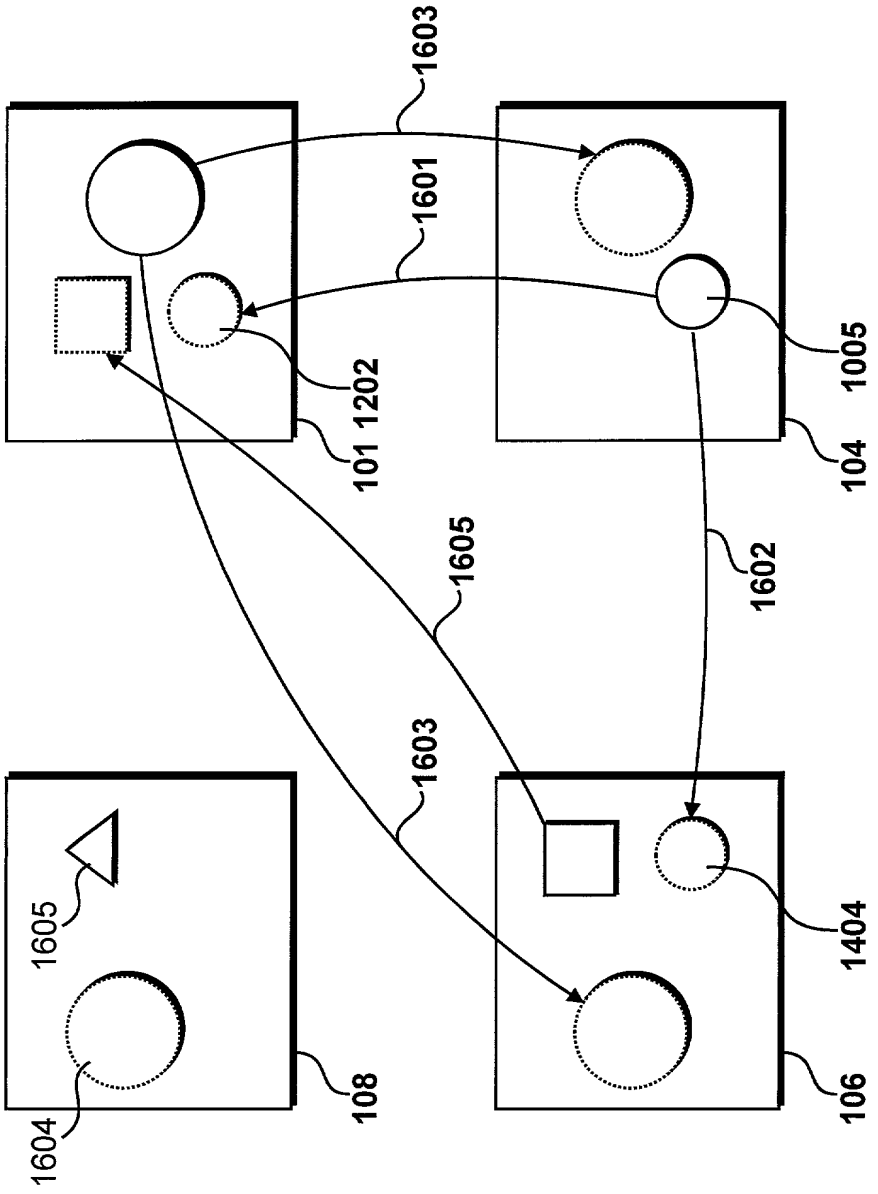
1603
1601
1202
101
1005
104
1605
1602
1603
1605
1404
1604
108
106

Figure 16

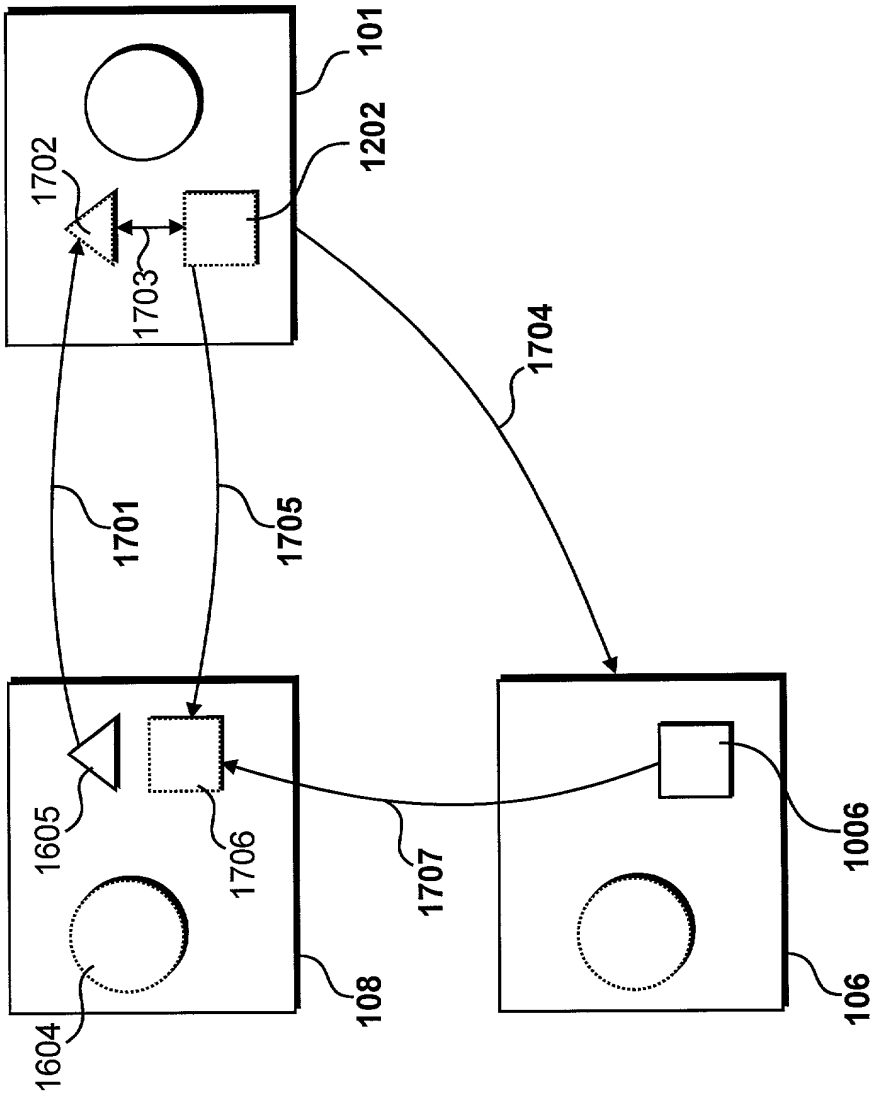
101
1202
1702
1703
1704
1701
1705
1605
1706
1707
1006
1604
108
106

Figure 17